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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,425	12/04/2003	Kazutaka Inoguchi	1232-5216	9445

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EXAMINER

HARRINGTON, ALICIA M

ART UNIT	PAPER NUMBER
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2873

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/728,425

Applicant(s)

INOUCHI ET AL.

Examiner

Alicia M. Harrington

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 8-17 is/are rejected.
- 7) ☒ Claim(s) 3-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0406</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The Examiner has partially considered the information disclosure statement filed on 4/12/06. US 4,322,135 was previously considered, and US 2003/005998 is not a correct publication number.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,2,16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ellis (GB 2316758).

Regarding claim 1, Ellis discloses an image display apparatus comprising:

a single image-forming device which forms an original image;

and

a first optical system and a second optical (13a and 13b) system which are disposed on both sides of a central plane which includes a central axis of the image forming device, the first optical system guiding light from the image forming device to a first eye of an observer placed near a pupil of the first optical system and the second optical system guiding light from the image forming device to a second eye of the observer placed near a pupil of the second optical system (see figure 4).

wherein, when light traveling from the image-forming device to each of the pupils is inversely traced from the pupil (the path of light back from pupil through the optical system is reflected away from the central axis), each of the first and second optical systems includes:

a first surface which reflects the inversely traced light from the pupil in a direction away from the central plane; and
a second surface which reflects the inversely traced light from the first surface in a direction away from the central plane (for example 35 and 23).

Regarding claim 2, see figure 4.

Regarding claim 16, an image intensifier(25).

4. Claims 8-15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagata et al (EP 1186933).

Regarding claim 8, Nagata discloses an image display apparatus comprising: a single image forming device which forms an original image; and
a first optical system and a second optical system (left and right side), the first optical system guiding light from the image forming device to a first eye of an observer, and the second optical system guiding light from the image forming device to a second eye of the observer (see figure 7, sections 55 +),
wherein each of the first and second optical systems includes:
a first surface (24L); a second surface (25L); wherein the first surface again reflects the light from the second surface (see figure 7).

Regarding claims 9-14 and 17, see figure 7 and sections 55-59.

Regarding claim 15, see figure 7.

Allowable Subject Matter

5. Claims 3-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: prior art taken either singularly or in combination fails to anticipate or fairly suggest the image display apparatus comprising each of the first and second optical systems is arranged in a plane symmetry with respect a plane perpendicular to the central axis as in claim 3; at least one of the plurality of reflective surfaces is a decentered curved surface as in claim 4; ; at least one of the plurality of reflective surfaces is a rotationally asymmetric surface as in claim 5; wherein an intermediated image is formed within each of the first and second optical system as in claim 6; wherein a third surface which reflects the inversely trace light reflected by the second surface back to the second surface as in claim 7.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Harrington whose telephone number is 571 272 2330. The examiner can normally be reached on Monday - Thursday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571 272 2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Alicia M Harrington
Primary Examiner
Art Unit 2873

amh